

CV / Professor **Juha Äystö** (April 2014)

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Born: June 19, 1948. Married, one child.

Education

Ph.D in Physics 1977, M.Sc. in Physics 1973, University of Jyväskylä, Finland

Highschool graduate, Jyväskylän Lyseo 1967

Language skills: finnish (mother tongue), english (excellent). Other: basic swedish and german.

Military rank: Ensign (Vänrikki)

Professional appointments since 1978

01/1978-12/1979	Research Associate, Nuclear Science Division, Lawrence Berkeley Laboratory, University of California, Berkeley, CA, USA
01/1980-12/1982	Senior Assistant, University of Jyväskylä
01/1983-07/1986	Researcher, Academy of Finland
01/1984-07/1985	Staff Scientist, Nuclear Science Division, Lawrence Berkeley Laboratory, University of California, Berkeley, CA, USA
08/1986-07/1992	Senior Researcher, Academy of Finland
08/1992 -	Professor of Physics, University of Jyväskylä
01/1990-08/1997	Scientific Director, Accelerator Laboratory, University of Jyväskylä
02/1996-08/1996	Paid scientific associate at CERN
09/1997-08/1999	Head of the Department of Physics, University of Jyväskylä
09/1999-08/2002	Staff Member and ISOLDE Physics Group Leader at CERN
01/2003-12/2005	Director of the Center of Excellence on Nuclear and Condensed Matter Physics, University of Jyväskylä
01/2002-03/2012	Leader of the Nuclear Matter Program, Helsinki Institute of Physics
01/2006-12/2011	Team leader at the Center of Excellence on Nuclear and Accelerator Physics, University of Jyväskylä
04/2012-06/2016	Director, Helsinki Institute of Physics (HIP)

Publications: Co-authored original publications in peer-reviewed journals: about 500

Invited speaker in over 70 International Conferences, Workshops, Schools and Colloquia. Latest: A plenary speaker at the International Nuclear-Nucleus Collisions Conference in San Antonio, Texas, May 2012.

Awards and Prizes

- Member of The Finnish Academy of Science and Letters since 1997.
- The Knight, First Class, of the Order of White Rose of Finland, granted by the President of the Republic of Finland, December 6, 2001.
- The Commander's Cross, of the Order of the Lion of Finland, granted by the President of the Republic of Finland, December 6, 2009.

- GSI (Germany) Exotic Nuclei Community GENCO membership award for “Nuclear Structure and Decay Studies of Exotic Nuclei” , July 11, 2000
- Theodor Homén Prize for Physics awarded by the The Finnish Society of Sciences and Letters, April 28, 2006.
- The Lise Meitner Prize for Nuclear Science awarded by the European Physical Society, 2010.

Recent memberships in scientific peer review committees and advisory boards

- Board of the Helsinki Institute of Physics (1996-2002)
- Chairman of the European Collaboration Committee on Nuclear Physics, NuPECC (1999-2002). <http://www.nupecc.org/>
- Commission on Nuclear Physics (C12) of the International Union of Pure and Applied Physics, IUPAP; (1996 – 2002);
- Vice Chair of the Wissenschaftliche Rat des Gesellschaft für Schwerionenforschung (GSI), Darmstadt, Germany (1998 – 2003);
- Program Advisory Committee of the Holifield Radioactive Ion Beam Facility at Oak Ridge National Laboratory, USA (2000-2005);
- Advisory Committee of TRIUMF (TRIUniversity Meson Factory), Vancouver, Canada (2000-2005);
- Subcommittee of Nuclear Science Advisory Committee for DOE on Low Energy Nuclear Physics and Astrophysics in USA (2001);
- Scientific Advisory Committee of Kernfysisch Versneller Instituut (KVI), University of Groningen (2002-2011), The Netherlands;
- Chair of the Scientific Policy Committee of the Holifield Radioactive Ion Beam Facility at Oak Ridge National Laboratory, USA (2002-2009);
- Chair of the ISOLDE and Neutron-Time-of-Flight Scientific Committee (INTC), CERN (2003-2006);
- Ex-Officio member of the Scientific Policy Committee, CERN (2003-2006);
- Working group on scientific and technical issues of FAIR, Facility for Antiproton and Ion Research (2004-2010);
- Chairman of the Scientific Advisory Board of the Center for Underground Physics in Pyhäsalmi CUPP, Finland (2004-2006);
- Advisory Committee of RIKEN Radioactive Beam Facility, Tokyo, Japan (2004-2006);
- Chair of the Steering Committee for FP6 EURISOL Design Study project (2005-2009) <http://www.eurisol.org/site02/govstruc.php?ddoc=home>
- SUNAMCO Commission (C2) of the International Union of Pure and Applied Physics, IUPAP; (2006-); <http://www.iupap.org/commissions/c2/members.html>
- Programme Advisory Committee of RIKEN Radioactive Beam Facility, Tokyo, Japan (2007-2009);
- Subatomic Physics Grant Selection Committee of Natural Sciences and Engineering Research Council (NSERC) of Canada (2007-2010);
- Big Science Committee, Fonds voor Wetenschappelijk Onderzoek (FWO), Belgium (2008);
- <http://www.fwo.be/Panel-Big-Science.aspx>

- Commission Hercules Science, Flanders, Belgium (2008-);
http://www.herculesstichting.be/in_English/organisation/hercules_science_commission.php
- Scientific Policy Committee, CERN, Geneva, Switzerland (2008-2014)
<http://council.web.cern.ch/council/en/SPC/SPCMembers.html>
- Merit Review Panel of the Department of Energy (DOE) Facility for Rare Isotope Beams FRIB, USA (2008)
- Board of the University of Jyväskylä (Hallitus) (2009-2012),
- In-kind advisory Board for FAIR, Facility for Antiproton and Ion Research (2010-2012)
- Spanish Ministry of Science, Evaluation Panel for the Particle Physics Projects (2010)
- Long Range Plan Committee of NSERC for the Canadian Subatomic Physics 2011-2016. (2010-2011)
- Conseil Scientifique et Technique de Service, Nuclear Physics Laboratory (SPhN), Saclay-CEA. (2011-2014)
- Scientific Advisory Board, Max Planck Institute for Nuclear Physics, Heidelberg (2011-16)
<http://www.mpi-hd.mpg.de/mpi/en/institute/organizational-structure/>
- Equipment of Excellence (EQUIPEX) Jury of the French National Research Agency (2010-2011), Paris, France.
- Evaluation panel, Excellence Initiative Program by the German Federal and State Governments (2012)
<http://www.wissenschaftsrat.de/1/fields-of-activity/excellence-initiative/>
- Council, Facility for Antiproton and Ion Research (FAIR), Darmstadt, Germany
- Nishina Center Advisory Council (NCAC), RIKEN, Tokyo, Japan (2013-)
- TRIUMF Five-year Review Committee for Canadian National Research Council, Vancouver, Canada (2013)

Committees for International Conferences and Schools

Member in over 90 advisory committees of International Conferences during 1984 – 2014.

Some examples of recent activities:

- Chairman for the ENAM2001, the International Conference on Exotic Nuclei and Atomic Masses, Aulanko, Hämeenlinna, Finland , July 2001;
- Scientific Director of the Euroschool on Exotic Beams, Les Houches, France, September 2002.
- Organiser of the Topical Symposium on “Towards Exotic Nuclei” in the International Nuclear Physics Conference, inpc2004, Göteborg, Sweden, July 2004.
- Chairman of the NUPAC (Nuclear Physics and Astrophysics at CERN) workshop, Geneva, Switzerland, October 2005.
- Chair of the organizing Committee of the Joint EURONS and EURISOL Town Meeting, Helsinki, Finland, September 2007.
- Co-chair of the 2nd FIDIPRO-EFES Workshop on Future Prospects of Nuclear Structure Physics, Saariselkä, Finland, April 2009.
- Chair, Advisory Committee of Int. Conf. on Trapped Charged Particles and Fundamental Physics, TCP2010, Saariselkä, Finland, April 2010

Editorial activities in scientific journals

- Delegation of Arkhmedes, the Finnish Journal for Mathematics and Science (1989 – 93)
- Editorial Board of Nuclear Physics News International, Gordon & Breach (1995 – 98)
- Chair, Editorial Board of Nuclear Physics News International, Gordon&Breach (1998-99)
- Associate Editor of The European Physical Journal A, Springer (1998 – 2013)
<http://www.springer.com/physics/particle+and+nuclear+physics/journal/10050?detailsPage=editorialBoard>
- Editorial Board of Hyperfine Interactions, Springer (2009 -)
<http://www.springer.com/physics/particle+and+nuclear+physics/journal/10751>
- Editorial Board of Physical Review C, American Physical Society (2009-2011)
<http://prc.aps.org/staff>

Referee for the following journals

NATURE, Physics Letters B, Physical Review Letters, Physical Review C, Journal of Physics G: Nuclear and Particle Physics, Journal of Physics B: Atomic, Molecular & Optical Physics, Radiochimica Acta, Nuclear Physics A, Nuclear Instruments and Methods, European Physical Journal A, International Journal of Mass Spectrometry, Hyperfine Interactions

Refereeing of research funding proposals for:

Academy of Finland; NorFA; Swedish Research Council; Engineering and Physical Sciences Research Council, UK; Grant Review Committee of the Italian Ministry of Education; ESF Standing Committee for Physical and Engineering Sciences; Canadian Research Council; Nuclear Science Advisory Committee for DOE and NSF, USA; CNRS and ANR, France; JSPS, Japan; Helmholtz Foundation, Germany, ERC Starting Grants, ERC Advanced Grants

Referee for Ph.D. theses, opponent or committee member in thesis examinations, evaluator in professorial promotions and professor appointments

Several times in Austria, Belgium, Canada, Finland, France, Germany, The Netherlands, Spain, Sweden, UK and USA.

Advisor for the Ph.D. theses:

Juha Ärje (1986), Heikki Penttilä (1992), Zenon Janas, University of Warsaw (1993), Ari Jokinen (1994), Pekka Jauho (1993), Mika Huhta (1997), Antti Honkanen (1998), Markku Oinonen (1998), Jicheng Wang (1998), Gregory Cachel, University of Lyon (2000), Saara Nummela (2000), Kari Peräjärvi (2000), Zoran Radivojevic (2001), Oliver Forstner, Technical University of Vienna (2001), Arto Nieminen (2002), Yuobao Wang (2002), Veli Kolhinen (2003), Jussi Huikari (2003), Anu Kankainen (2006), Sami-Rinta-Antila (2006), Ulrike Hager (2007), Thomas Kessler (2008), Tommi Eronen (2008), Viki Elomaa (2009), Pasi Karvonen (2010), Juho Rissanen (2011), Antti Saastamoinen (2011), Matti Kalliokoski, University of Helsinki (2012), Mikael Reponen (2012), Jani Turunen (2013)

Some selected publications of Juha Äystö

Total number of original refereed papers (1985-2014) is 511 with the h-index of 47. (ISI Web of Science)

Title: High-accuracy mass spectrometry of fission products with Penning traps

Author(s): Kankainen, A.; Äystö, J.; Jokinen, A.

Source: J. PHYS. G-NUCLEAR AND PARTICLE PHYSICS Volume: 39 Issue: 9 Article Number: 093101

Published: SEP 2012

Title: Precision Mass Measurements beyond ^{132}Sn : Anomalous Behavior of Odd-Even Staggering of Binding Energies

Author(s): Hakala, J.; Dobaczewski, J.; Gorelov, D.; J. Äystö et al.

Source: PHYSICAL REVIEW LETTERS Volume: 109 Issue: 3 Article Number: 032501

Published: JUL 2012

Title: Precise Determination of the Unperturbed ^8B Neutrino Spectrum

Author(s): Roger, T.; Buscher, J.; Bastin, B.; J. Äystö et al.

Source: PHYSICAL REVIEW LETTERS Volume: 108 Issue: 16 Article Number: 162502

Published: APR 2012

Title: Elliptic Flow of Charged Particles in Pb-Pb Collisions at $\sqrt{s(\text{NN})}=2.76$ TeV

Author(s): Aamodt, K.; Abelev, B.; Abrahantes Quintana, A.; J. Äystö et al.

Group Author(s): ALICE Collaboration

Source: PHYSICAL REVIEW LETTERS Volume: 105 Issue: 25 Article Number: 252302

Published: DEC 2010

Title: MATS and LaSpec: High-precision experiments using ion traps and lasers at FAIR

Authors: Rodriguez, D.; Blaum, K.; Noertershaeuser, W.; J. Äystö et al.

Source: EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS Volume: 183 Pages: 1-123

Published MAY 2010

Title: Charged-Particle Multiplicity Density at Midrapidity in Central Pb-Pb Collisions at $\sqrt{s(\text{NN})}=2.76$ TeV

Author(s): Aamodt, K.; Abelev, B.; Abrahantes Quintana, A.; J. Äystö et al.

Group Author(s): ALICE Collaboration

Source: PHYSICAL REVIEW LETTERS Volume: 105 Issue: 25 Article Number: 252301

Published: DEC 2010

Title: First proton-proton collisions at the LHC as observed with the ALICE detector: measurement of the charged-particle pseudorapidity density at $\sqrt{s}=900$ GeV

Author(s): Aamodt, K.; Abel, N.; Abeysekara, U.; J. Äystö et al.

Group Author(s): ALICE Collaboration

Source: EUROPEAN PHYSICAL JOURNAL C Volume: 65 Issue: 1-2 Pages: 111-125

Published: JAN 2010

Title: Physics at a future Neutrino Factory and super-beam facility

Author(s): Bandyopadhyay, A.; Choubey, S.; Gandhi, R.; J. Äystö et al.

Group Author(s): ISS Phys Working Grp

Source: REPORTS ON PROGRESS IN PHYSICS Volume: 72 Issue: 10 Article Number: 106201

Published: OCT 2009

Title: The ALICE experiment at the CERN LHC

Author(s): Aamodt, K.; Quintana, A. Abrahantes; Achenbach, R.; J. Äystö et al.

Source: JOURNAL OF INSTRUMENTATION Volume: 3 Article Number: S08002
Published: AUG 2008

Title: First precision mass measurements of refractory fission fragments

Author(s): Hager, U; Eronen, T; Hakala, J; J. Äystö et al.

Source: PHYSICAL REVIEW LETTERS Volume: 96 Issue: 4 Article Number: 042504

Published: FEB 2006

Title: Revised rates for the stellar triple-alpha process from measurement of ^{12}C nuclear resonances

Author(s): Fynbo, HOU; Diget, CA; Bergmann, UC; J. Äystö et al.

Group Author(s): ISOLDE Collaboration

Source: NATURE Volume: 433 Issue: 7022 Pages: 136-139

Published: JAN 2005

Title: JYFLTRAP: a cylindrical penning trap for isobaric beam purification at IGISOL

Author(s): Kolhinen, VS; Kopecky, S; Eronen, T; J. Äystö et al.

Source: NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS
SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT Volume: 528 Issue: 3 Pages: 776-787

Published: AUG 2004

Title: Laser spectroscopy of cooled zirconium fission fragments

Author(s): Campbell, P; Thayer, HL; Billowes, J; J. Äystö et al.

Source: PHYSICAL REVIEW LETTERS Volume: 89 Issue: 8 Article Number: 082501

Published: AUG 2002

Title: On-line ion cooling and bunching for collinear laser spectroscopy

Author(s): Nieminen, A; Campbell, P; Billowes, J; J. Äystö et al.

Source: PHYSICAL REVIEW LETTERS Volume: 88 Issue: 9 Article Number: 094801

Published: MAR 2002

Title: Development and applications of the IGISOL technique

Author(s): Äystö, J

Source: NUCLEAR PHYSICS A Volume: 693 Issue: 1-2 Pages: 477-494

Published: OCT 2001

Title: Spectroscopy of Si-34, Si-35 by beta decay: sd-fp shell gap and single-particle states

Author(s): Nummela, S; Baumann, P; Caurier, E; J. Äystö et al.

Group Author(s): ISOLDE Collaboration

Source: PHYSICAL REVIEW C Volume: 63 Issue: 4 Article Number: 044316

Published: APR 2001

Title: The REX-ISOLDE project

Author(s): Habs, D; Kester, O; Sieber, T; J. Äystö et al.

Group Author(s): REX-ISOLDE Collaboration

Source: HYPERFINE INTERACTIONS Volume: 129 Issue: 1-4 Pages: 43-66

Published: 2000

Title: The beta 2p decay mechanism of Ar-31

Author(s): Fynbo, HOU; Borge, MJG; Axelsson, L; J. Äystö et al.

Group Author(s): ISOLDE Collaboration

Source: NUCLEAR PHYSICS A Volume: 677 Pages: 38-60

Published: SEP 11 2000

Title: GAS-FILLED RECOIL SEPARATOR FOR STUDIES OF HEAVY-ELEMENTS

Author(s): LEINO, M; ÄYSTÖ, J; ENQVIST, T; et al.

Source: NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-
BEAM INTERACTIONS WITH MATERIALS AND ATOMS Volume: 99 Issue: 1-4 Pages: 653-656

Published: MAY 1995